

# **UC Santa Barbara**

## **GIS Core Curriculum for Technical Programs (1997-1999)**

### **Title**

Outline of the GIS Core Curriculum for Technical Programs

### **Permalink**

<https://escholarship.org/uc/item/66f6b4n6>

### **Author**

National Center for Geographic Information and Analysis

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## **NCGIA GIS Core Curriculum for Technical Programs**

With support from the National Science Foundation, in 1996–1998 NCGIA (UCSB) organized a project under the direction of Steve Palladino to provide a web-based GIS curriculum-building resource for course instructors in Community Colleges.

This outline provides direct links to the completed CCTP resource units, in addition to the following:

[Instructor's Guide](#)—provides contextual information for creating GIS instructional resources for use in two-year technical programs and an illustration of how CCTP can be used (e.g., a Tutorial for Creating a Digitizing Project)

A [tree graphic](#) (and metaphor), used by project organizers to structure CCTP resources:

- Background Information—trunk
- Spatial Data Tasks (units)—branches
- Resources—roots

### **Update (2015):**

For more information about NCGIA's CCTP project, see the [Introduction](#)  
Two other NCGIA core curricula projects are available through this eScholarship site:

- [Core Curriculum-Geographic Information Systems \(1990\)](#)
- [Core Curriculum-Geographic Information Science \(1997-2000\)](#)

**For more recent information** and support in providing GIS instruction for community colleges, consult resources provided by the [GeoTech Center](#).

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## **NCGIA's CCTP Outline 1998**

### **Background Information—Trunk:**

[What is GIS?](#)

[Geography for GIS](#)

[Computing for GIS](#)

[GIS Applications and Case Studies](#)

## **Spatial Data Tasks—Branches (units)**

\* titles only; units not available

### **Accessing Spatial Data Sources**

[Unit 1: Data Acquisition](#)

[Unit 2: Demographic Data](#)

[Unit 3: Locating Transportation Data](#)

[Unit 4: Land Records](#)

Unit 5: Natural Resources Data \*

[Unit 6: Terrain Data](#)

[Unit 7: Finding, Creating, and Interpreting Metadata](#)

Unit 8: Error Checking \*

[Unit 9: Spatial Data Conversion](#)

[Unit 10: Projecting Data](#)

[Unit 11: Registration and Conflation](#)

[Unit 12: Planning a Digitizing Project](#)

[Unit 13: Digitizing Maps](#)

[Unit 14: On-Screen Digitizing](#)

[Unit 15: Labeling](#)

[Unit 16: Planning a Scanning Project](#)

[Unit 17: Scanning Maps](#)

[Unit 18: Scanning Air Photos](#)

Unit 19: Planning a Tabular Database \*

Unit 20: Using Text Editors \*

Unit 21: Using Spreadsheets \*

Unit 22: Merging Tabular Data with Spatial Data \*

[Unit 23: Creating Maps with CAD](#)

[Unit 24: Using GPS Data](#)

[Unit 25: Using COGO for Data Input](#)

## **Managing Spatial Data**

Unit 26: Editing Point Data \*

Unit 27: Editing Linear Data \*

[Unit 28: Editing Polygons](#)

[Unit 30: Validating Databases](#)

Unit 31: Managing Database Files \*

[Unit 32: Managing Digital Libraries](#)

## **Analyzing Spatial Data**

[Unit 33: Using Buffers](#)

[Unit 34: Overlay Operators](#)

Unit 35: Point in Polygon Operations, and Line in Polygon Operations \*

Unit 36: Using Distance and Connectivity Operators \*

Unit 37/38: Characterizing Spatial Neighborhoods or Regions \*

[Unit 39: Performing Statistical Analyses](#)

Unit 40: Using Reclassification Operators \*

[Unit 41: Using Boolean Search Techniques](#)

[Unit 42: Using Map Algebra](#)

[Unit 43: Using Derivative Surface Operators](#)

[Unit 46: Address Matching](#)

## **Reporting on Spatial Data**

[Unit 47: On-Screen Visualization](#)

[Unit 48: Designing Products for Printing](#)

Unit 49: Operating Plotter/Printer Hardware \*

Unit 50: Operating Plotter/Printer Software \*

[Unit 51: Preparing Digital Presentations](#)

## **Implementing and Managing GIS**

[Unit 52: Project Management](#)

[Unit 53: Communicating About and Distributing GIS Products](#)

